

into a good "Dissector's Manual" (which usually has the gist of the author's directions) it would be of great value, but dissevered from the additional aid such a book gives, we fear it will scarcely gain the favour its inherent merits deserve. Its greatest value will be to advanced students and to graduates who wish to renew their anatomical studies.

W. W. K.

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ART. XXXIII.—*How to Use a Galvanic Battery in Medicine and Surgery.*

A Discourse upon Electro-Therapeutics, delivered before the Hunterian Society, upon November 8, 1876. By HERBERT TIBBITS, M.D., F.R.C.P. Edin., Hon. Med. Sup't of National Hospital for Paralyzed and Epileptic, etc. 8vo. pp. 56. London: J. & A. Churchill, 1877.

DR. TIBBITS is well and favourably known to the profession in this country through his *Hand-Book of Medical Electricity*, and we are glad to have from his pen the little book before us, which, as will be seen from the title, consists of a lecture published at the request "of several who heard it delivered."

As the name implies, the object is to tell how to use a battery and to give, in a small space, practical information on electro-therapeutics. The matter is so much condensed, however, that it is not altogether satisfactory, for one feels at every page a desire for a fuller account of the subjects considered.

A good many of the pages are taken up with a description of the "Tibbits batteries," "the Voltaic," "the induction," and the "combined" battery; one of the peculiarities of the first, and, indeed, of all of the forms of batteries consists in the substitution of the Leclanché cell for the Smee or Bunsen element. There are some advantages in this cell in a portable battery, for as Dr. Tibbits says, there is no need for any arrangement to remove the elements from the cells when the battery is not in use, and there is not the same danger of damage to the battery should it overturn, but there is very little trouble in raising and lowering the cells in a Stöhrer battery, and there is absolutely no waste of the elements in any of these batteries when not in action; while in the Leclanché cell, although the wear of the elements may be slow, still, in time, it is considerable, and is going on always whether the battery be in use or not. Besides, in all of the Leclanché cells that we have seen, there has been a running over of chloride of zinc on the outside of the cells, and this must be a disadvantage when they are in a box.

The current selector is very ingeniously arranged so that the operator can choose the cells beginning at either end of the series, and in this way avoid using the one portion of the cells more than another. The Faradic apparatus has no means of making a slow interruption, and this, we think, is indispensable for an office battery. One thing that particularly pleases us about the induction battery is that the author has only the secondary coil connected with the electrodes. We almost exclusively use the secondary current, and could never see the use of the four and six current batteries that are so loudly vaunted by their makers.

The method of applying electricity is given, but too briefly, only a few lines being devoted to direct muscular electrization, and no reference is made to the use of the "motor points" in the application.

The electro-therapeutics of several diseases is given, and comparatively large space is devoted to Infantile Paralysis, as the author is desirous of showing how much good can be done for this affection by electricity. Electrolysis and the

galvano-cautery are dealt with in the remaining pages. A description is given of the author's cautery battery, but it is to be regretted that he does not give the size of the apparatus and the work that it is capable of performing.

The brochure will certainly be found useful by many busy practitioners, and we would recommend such to buy it, for it contains many valuable and practical hints.

W. S.

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ART. XXXIV.—*The Electrical Bath ; its Medical Uses, Effects, and Appliances.* By GEORGE M. SCHWEIG, M.D., Member of the New York County Medical Society, etc. 16mo. pp. 134. New York: G. P. Putnam's Sons, 1877.

WE well remember having seen in the pages of a contemporary, a couple of years ago, a paper by Dr. Schweig, on "some of the uses of the electric bath," and were struck with the circumstance that, although the author claimed that his method was new, there was absolutely no intimation given as to how the treatment was applied. We had anxiously waited for some further information, and had hoped that this communication from the author might place within our reach the plan, which, according to the above-mentioned paper, had wrought some wondrous cures. The book before us, however, while claiming in the preface to "present to the profession all that is necessary to a full comprehension of the electro-balneological treatment," does not teach anything in regard to the actual application of the author's method.

Minute details are given as to the construction of the bath-tub, the kind of wood to be used, number of coats of paint, etc., and even as to the manner of placing a carbon electrode at each end of the tub. But how is the application to be made? We may be stupid, but we cannot find out. We cannot discover if the patient is to be in contact with the foot or head electrode, or with both, or neither, and it seems as if this were an important point to know. Then as to the strength of the electrical current employed in the baths, we are told that batteries vary so much in strength that it is impossible to express this in figures. But surely the batteries manufactured by the Galvano-Faradic Co. are so well known that if it were said that a current from so many inches of the primary or secondary coil of one of these instruments were used, we would have some idea of the strength.

The author refers to using in the baths as an adjuvant to treatment certain chemical substances. Some of these are to be used with a view of their being absorbed by the body, and others are to aid in eliminating metallic poisons from the body. We are not told if there is any difference in the method if one or the other end is desired, but to us that is of small importance, for we must acknowledge to having but little faith in the absorption of iron, iodide of potassium, or *extract of malt* by the skin through the agency of electricity. The above substances are what Dr. Schweig says he has used. If these substances are taken up by the system in the above manner, why not demonstrate it by experiment? If iodide of potassium is absorbed it will be eliminated by the urine, and can be there detected. In the use of a salt of iron we should think it as likely that metallic iron would be electrotyped on the surface of the person as to be absorbed, and imagine a patient emerging from his bath in a coat of mail! A number of pages are devoted to the "physiological effects" of the electrical bath, but as the author states that he has had the opportunity of observing its effects on but few healthy persons, the observations as *physio-*